

perfusion, who responded to a low protein diet and had a good prognosis, and those with fixed filtration and perfusion resistant to dietary interventions, whose disease progressed relentlessly.

In conclusion, we believe that although a low protein diet is beneficial in slowing the progression of chronic renal failure, such a dietary effect depends on the underlying nephropathy and the nature of the glomerular perfusion pattern. Patients with increased or reversible glomerular perfusion are likely to be the ones with mild focal glomerular involvement. They are the most likely to benefit from dietary treatment. Patients with severe vascular and diffuse glomerular disease, as well as fixed renal perfusion, are unlikely to improve with such a diet. In the future the therapeutic approach to patients with chronic renal disease might have to be tailored to the underlying nephropathy once its haemodynamic profile has been established. Meanwhile, early introduction of dietary protein restriction should be seriously considered in patients with chronic renal failure.

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Regional variations in British alcohol morbidity rates: a myth uncovered? I: Clinical surveys

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Abstract

Officially recorded rates of many alcohol related problems are much higher in the north than in the south of Britain. To try to shed some light on this the pattern and threshold for use of psychiatric and medical hospital services for alcohol dependence, abuse, and psychosis were studied in three areas differing greatly in official rates of alcohol related problems—namely, the Highland and Tayside regions in Scotland and part of the South East Thames region in England. The disparity in psychiatric admissions for alcohol dependence, abuse, and psychosis

were found to be largely explained by admission policies which reflected geographical factors.

The results of this study did not support the conventional view that rates of treated morbidity due to alcohol are appreciably higher in the north.

Introduction

Officially recorded rates of many alcohol related problems are substantially higher in the north of Britain than they are in the south.¹⁻⁴ The rate of first admissions to psychiatric hospitals for alcohol dependence, abuse, and psychosis is 12 times higher in the Highland region than it is in southern England. Information available about regional patterns of alcohol consumption has been very limited and is conflicting. While some evidence indicates that there is a decreasing gradient in heavy drinking from the north west to the south east,^{5,6} other data suggest that community alcohol consumption levels in Scotland are almost indistinguishable from those south of the border.⁷

We present data from one of two separate yet complementary studies. Both were related to the Highland and Tayside regions in Scotland and part of the South East Thames region in England. These three areas were selected because of their differences in official rates of alcohol related problems. In 1981

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the rates for first admissions to psychiatric beds of residents in the three areas for alcohol dependence, abuse, and alcoholic psychosis (ICD (9th revision) codes 291, 303, 305.0) per 1000 population were: Highland 0.75, Tayside 0.62, Kent 0.06 (Scottish Home and Health Department and Department of Health and Social Security, personal communication, 1982). The first study was conducted to ascertain whether this difference, even if reflecting morbidity due to alcohol in each area, was affected by policy as reflected in threshold of severity of the conditions requiring admission or by differing provision of services, or both.

Comparison of inpatients

METHOD

Samples of inpatients whose primary diagnosis was alcohol dependence, abuse, or psychosis were interviewed during 1981-2. So far as possible the samples were consecutive. Because some patients stayed in hospital very briefly there was an equal bias in the three regions towards those who stayed longer. Demographic details of the samples were compared with available data on all eligible patients in each area, and it was found that the samples were representative in terms of marital state, age, source of referral, and, in Scotland, social class (social class data were not available in England).

The numbers of men and women patients interviewed in the three regions were: Highlands 90 and 20, Tayside 69 and 17, and Kent 31 and 10 respectively. These numbers reflected the rates of the diagnoses in the three areas. Over half of the interviews were carried out by one of us (RWL) and the remainder by male interviewers trained by RWL. These were charge nurses with clinical experience of alcohol dependence. Reliability among raters was tested. Each interviewer rated three interviews tape recorded by each of the other interviewers. Differences in ratings were limited to a question concerning amnesias, which was later discarded, and to small discrepancies in total alcohol consumption traceable to English interviewers' misinterpretation of Scottish slang (in other words, the original interviewer was correct). This high reliability among raters, already reported by Chick for that part of the interview concerned with dependence,⁸ reflected the highly structured nature of the interview, which lasted about one hour.

Data on alcohol consumption were collected relating to drinking during the previous week or, if this was atypical, the most recent typical week. This approach was used to avoid the bias associated with quantity-frequency methods noted by J Duffy (paper presented at the alcohol epidemiology section (ICAA), Helsinki, 1982). Alcohol dependence was investigated using a schedule devised by Chick.⁸ This made operational the description by Edwards and Gross of the alcohol dependence syndrome.⁹ In addition, data were obtained concerning alcohol related consequences in the patient's family, work, and general health and related to public order. These items had been tested in other studies—for example, that of Kreitman *et al* on use and misuse of alcohol among brewers and directors (personal communication, 1984). They had been designed to elicit consequences occurring within the past two years. Particular attention was paid

to the ascription of any consequences to alcohol. Biographical details were also obtained.

No patient refused to cooperate. Interviews were conducted simultaneously in the three areas.

RESULTS

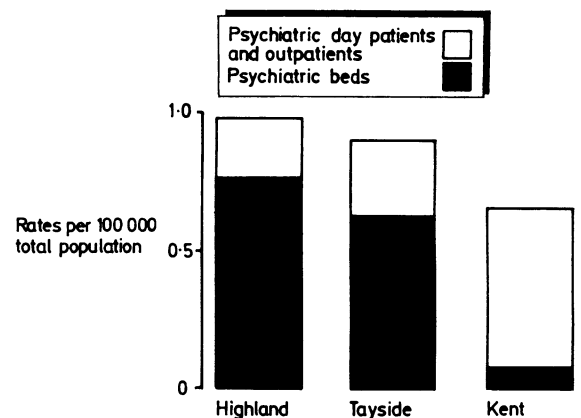
There were no significant differences in the "typical" self reported alcohol consumption levels of respondents of the same sex among the three areas. Rates of alcohol related problems (health, family, public order, and employment) were also compared. Problem scores were derived by adding the number of problems each respondent attributed to his or her drinking in the past two years. Scores for severity of alcohol dependence were similarly derived by adding the number of symptoms of dependence experienced, but in the three months preceding hospital admission. The table gives the results. The only significant differences did not suggest that the patients in Kent were admitted at greater thresholds of severity or that those in the Highlands were admitted at lesser thresholds.

Effects of provision and use of services

Alternative methods of inpatient psychiatric treatment existed in each of the three areas and we therefore examined whether these alternatives were disproportionately developed or used.

METHOD

The alternative services considered were those for psychiatric outpatients and day patients. A centralised psychiatric case register in Tayside provided separate figures for first admissions, and for first



Use of psychiatric services in three areas for alcohol dependence and alcoholic psychosis during 1981 (data for men and women).

Patterns of alcohol consumption and alcohol related problems among patients admitted to psychiatric beds in three areas

Variable	Respondent's sex	Area			Level of significance*	
		Highland	Tayside	Kent	F	p
Mean (SD) typical week's alcohol consumption (units)†	{ Males Females	180 (102) 98 (62)	192 (134) 129 (81)	183 (135) 112 (83)	0.2 0.8	NS NS
Mean (SD) problem scores:						
Health	{ Males Females	2.6 (1.3) 2.1 (1.6)	3.1 (1.6) 2.8 (1.6)	2.1 (1.5) 2.6 (1.1)	5.0 1.1	<0.01 NS
Family	{ Males Females	1.8 (1.4) 1.2 (1.3)	2.2 (1.6) 1.9 (1.3)	1.7 (1.4) 1.5 (1.5)	1.6 1.2	NS NS
Public order	{ Males Females	1.2 (1.2) 0.4 (0.9)	1.7 (1.3) 0.6 (1.0)	0.9 (1.3) 0.6 (0.7)	5.6 0.4	<0.01 NS
Employment	{ Males Females	1.7 (1.4) 1.4 (1.1)	1.9 (1.5) 1.4 (1.3)	1.1 (1.2) 1.0 (1.1)	4.3 0.4	<0.05 NS
Mean (SD) severity of alcohol dependence score	{ Males Females	29 (10) 22 (7)	29 (12) 30 (10)	23 (14) 26 (12)	2.6 3.5	NS <0.05

NS = Not significant.

*One way analysis of variance for each sex, with F (2,187) for men and F (2,44) for women.

†Each unit equivalent to half pint (285 ml) ordinary beer, lager, etc, or single glass of wine or spirits. Each unit contains approximately 1.0 cl/7.9 g absolute alcohol.

contacts with the register who were not also admitted, for alcohol related diagnoses in 1981.

In the Highlands and Kent all letters of reply to referring agents were read by RWL if a patient was a new referral in 1981. Those who were not admitted were counted as outpatient cases if alcohol was mentioned as a major contributory factor in their psychiatric presentation. In Kent numbers of first attenders at a day unit were easily and reliably obtained (to the exclusion of those admitted) from records held on computer. All patients admitted or seen as day patients for alcohol related diagnoses routinely complete the severity of alcohol dependence questionnaire.¹⁰ There were no day patients in the Highlands.

RESULTS

The figure shows the results. When psychiatric inpatient, outpatient, and day patient rates were added the total rates of morbidity due to alcohol treated by psychiatric services approximated. The ratio between rates in the Highlands and Kent was only 1.53:1, compared with 12.5:1 for psychiatric inpatient rates. A comparison of day patients and inpatients in Kent who completed the alcohol dependence questionnaire showed no significant differences.

Conclusions

These findings do not support the conventional view that there is a large north to south gradient in rates of treated morbidity due to alcohol. Patterns of alcohol consumption

in the general population are reported in our accompanying paper.¹¹

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Regional variations in British alcohol morbidity rates: a myth uncovered? II: population surveys

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Abstract

Regional variations in officially recorded rates of alcohol related morbidity in Britain were investigated by surveying community drinking habits of a randomly selected sample of adults in the Highlands, Tayside, and part of the South East Thames region. Contrary to expectations, patterns of alcohol consumption did not differ in a manner consistent with the much higher rates of alcohol related problems recorded in the north.

Introduction

In our accompanying paper we reported that officially recorded levels of alcohol related problems are much higher in the north of Britain than they are in the south.¹ Paradoxically, evidence

about the corresponding levels of alcohol consumption in different regions is both restricted and inconsistent. In order to clarify the position two surveys were conducted. Both of these related to the Highlands, Tayside, and south east Kent. The first survey is described in our accompanying paper and was concerned with clinically diagnosed problem drinkers. This paper reports the results of the second survey, which was concerned with patterns of alcohol consumption in the general population.

Method

Data were obtained by interviewing samples of people drawn from the electoral register in each of the three areas. The initial sampling pool comprised 40 electors from 40 polling districts in each area. The polling districts were randomly selected within each area by (a) ranking parliamentary wards by size of population (largest to smallest); (b) similarly ranking polling districts (or civil parishes in rural areas) within wards; (c) dividing the cumulative total of electors (N) by 40; and (d) randomly selecting a number (which corresponded to an elector) between one and N/40. The polling district within which that elector resided became the starting point for selecting the remaining 39 districts. This was achieved by adding (N/40) 39 times to that initial random number.

Forty respondents aged 18 and over on 1 September 1982 were randomly selected from each polling district by choosing every 10th elector after a randomly chosen starting number between one and M-450. M was the number of electors in the polling district. This procedure randomly produced 1600 names equally divided by sex in each of the three survey areas. In order to increase the chance

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